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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/998,432

11/29/2001

Charles Robert Granitz

13DV14003

6295

6111 7590 04/28/2009  
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EXAMINER

HARRISON, MONICA D

ART UNIT

PAPER NUMBER

2893

MAIL DATE

DELIVERY MODE

04/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/998,432	<b>Applicant(s)</b> GRANITZ ET AL.	
	<b>Examiner</b> Monica D. Harrison	<b>Art Unit</b> 2893	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 21, 22, 24, 25 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Applicant's request for continued examination filed 2/9/09 has been entered.

Examiner acknowledges claims 5-20, 23, 26, 27 and 29-33 are cancelled.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall et al (4,050,237) in view of Dickinson (5,050,375).

2. Regarding claim 1, Pall et al discloses a method of operating a gas turbine engine (Figure 3, reference 30) which powers an aircraft (column 1, lines 6-17), said engine having a lubrication sump (Figure 3, reference 38) which vents air through a vent (Figure 3, reference 39) which produces an exit pressure at the exit of the vent (column 8, lines 21-44).

However, Pall et al does not disclose comprising: a) running the engine at idle; b) maintaining an eductor in fluid communication with said vent, which eductor: i) reduces pressure in said vent when actuated, and ii) includes a flow restrictor downstream of said vent; and c) actuating said eductor during idle operation, so as to reduce said exit pressure.

Dickinson discloses a) running the engine at idle (Figure 1); b) maintaining an eductor (Figure 1, reference 148) in fluid communication (Figure 1, reference 147) with said vent (Figure 1, reference 150), which eductor: i) reduces pressure in said vent when actuated (Figure 1, reference 151)), and ii) includes a flow restrictor downstream of said vent (Figure 1, references

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132 and 134); and c) actuating said eductor during idle operation, so as to reduce said exit pressure (Figure 1).

It would have been obvious, at the time the invention was made, for one having ordinary skill in the art, to modify Pall et al, with the teachings of Dickinson for the purpose of forming a pressurized wet combustion at increased temperature and reduced pressure in turbine engines.

3. Regarding claim 2, Pall et al discloses wherein the reducing of paragraph (b) comprises ducting a compressor discharge bleed (Figure 3, reference 34) to an eductor connected to the vent, to thereby draw air through the vent (Figure 3).

4. Regarding claim 22, Dickinson discloses wherein the flow restrictor is within the mixing throat of the eductor (Figure 1, reference 117).

5. Regarding claim 25, Dickinson discloses d) using the eductor to maintain fluid flow through the vent above a predetermined minimum, said fluid flow being accompanied by said reducing of pressure (Figure 1, reference 148).

Claims 3, 4, 21, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall et al (4,050,237) and Dickinson (5,050,375) in view of Letang et al (6,067,489).

6. Pall et al and Dickinson disclose the above claimed subject matter. However, Pall et al and Dickinson do not disclose d) terminating the reduction of exit pressure when flow through the vent exceeds a floor (claim 3), d) raising speed of the engine; and e) terminating the reduction of exit pressure (claim 4), d) maintaining the eductor in a de-actuated state at cruise speed (claim 21), e) during cruise operation, using the flow restrictor to reduce flow through the vent below that which would occur in the absence of the flow restrictor (claim 24) nor f) at cruise speeds, restricting flow through said vent (claim 28).

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Letang et al discloses d) terminating the reduction of exit pressure when flow through the vent exceeds a floor (column 3, lines 18-30), d) raising speed of the engine (column 19, lines 60-67 thru column 20, lines 1-17); and e) terminating the reduction of exit pressure (column 3, lines 18-30), d) maintaining the eductor in a de-actuated state at cruise speed (column 8, lines 17-50), e) during cruise operation, using the flow restrictor to reduce flow through the vent below that which would occur in the absence of the flow restrictor (column 8, lines 17-50) and f) at cruise speeds, restricting flow through said vent (column 8, lines 17-50) .

It would have been obvious, at the time the invention was made, for one having ordinary skill in the art, to modify Pall et al and Dickinson with the teachings of Letang et al, for the purpose of controlling an eductor at cruise speeds in order to control the engine load and temperature.

### ***Response to Arguments***

7. Applicant's arguments filed 1/8/09 have been fully considered but they are not persuasive. Applicant' argues that the admitted prior art of Pall et al, Dickinson and Letang et al do not read on the claimed limitations. Examiner disagrees. Applicant argues that Pall et al, Dickinson and Letang et al do not recognize or address how to solve the problem of modulating the pressure in a turbine engine oil sump so as to maintain adequate seal pressurization flow both at idle and at high pressure conditions. However, this is not claimed. Applicant's amendment to claim 1 is in the preamble which is not apart of the body of the claim so, the previously admitted prior art of Pall et al, Dickinson and Letang et al still reads on the instant application.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica D. Harrison whose telephone number is (571)272-1959. The examiner can normally be reached on M-F 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davienne Monbleau can be reached on 571-272-1945. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monica D. Harrison/  
Examiner, Art Unit 2893

mdh  
April 13, 2009

/Sue A. Purvis/  
Supervisory Patent Examiner, Art Unit 2826